

CUMMINS PERFORATORS- MODEL # 53

By Stephan Grabowski (#3409)

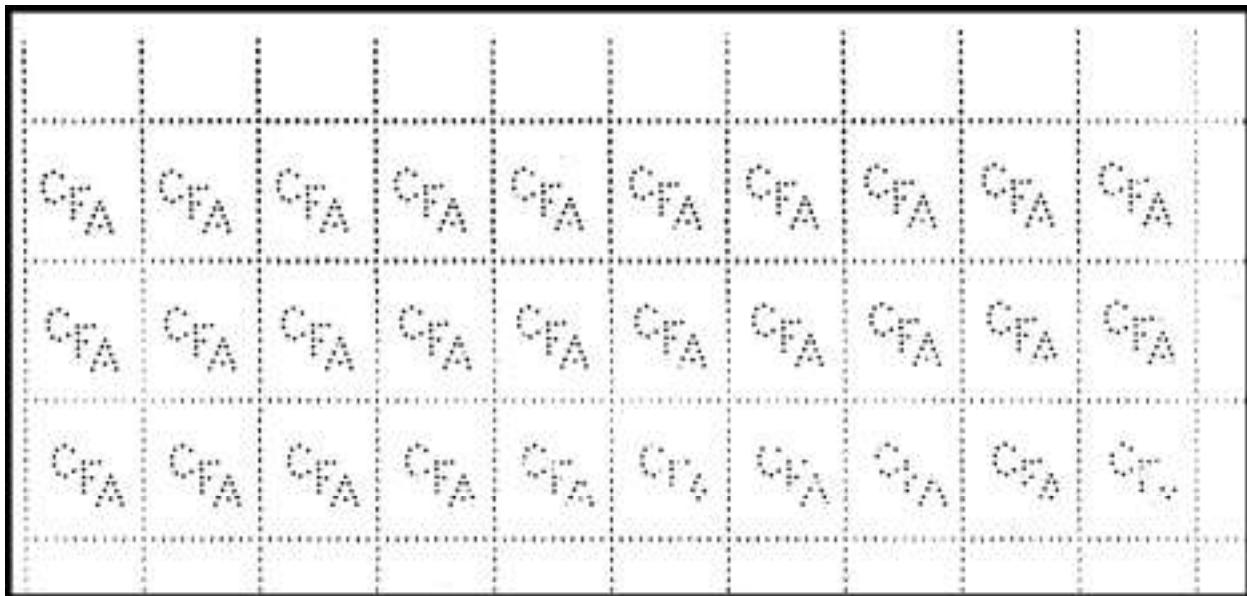


Figure 1: Three rows of perfin pattern C124 punched into stamps by a Cummins #53 10 die perforator.

I've had the opportunity to inspect and 'play' with two model #53 Cummins perforators. The opportunity was due to the generosity of Ellen Weisz (LM34). One punched perfin C124 (CFB) used by Central Freight Association, the other punched L137 (LSB), used by an unidentified department of the State of Pennsylvania (or possibly it is L137A with no user ID).

Both perforators are 10 die models but are in different formats resulting in the sheets being fed into the perforator in a different manner. In the C124 perforator the sheets are fed into the perforator to perforate a horizontal row of stamps, while the L137 perforator the sheets are fed so as to perforate a vertical column of stamps. See Figures 1 and 3 for impressions from both perforators and Figure 2 for a picture of a Model #53 perforator taken from a Cummins catalog. There is a difference between the two. Since the L137 perforator perforates a vertical column, the perforator is wider and the connection between the die and piston is more elaborate than shown in the catalog. The L137 perforator is a puzzle, why were the impressions made in this manner? Is there a possibility that it was used for other than postage stamps, or maybe for another size of stamp than a regular issue? I considered several sizes and could not find a match. Could anyone comment on this oddity?

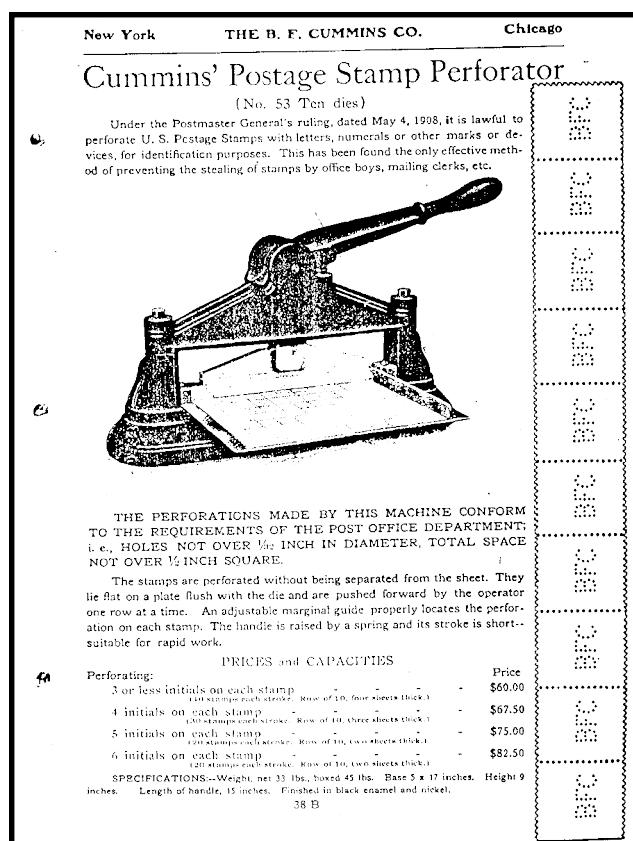


Figure 2. Cummins ad for its 10 die Model #53 perforator.

From the impressions made by the perforators I found that the C124 perforator still made clean holes in all impressions, while the L137 perforator punched no holes that were cleanly cut. Scanning the impressions with a black backup sheet produced a reasonable image. The perforator is either worn-out or the pins and holes are corroded accounting for the poor perforations.

I have suspicions that L137 and L137A are from the same perforator. L137A may be a poor strike of the perforator as seen from my experience with this perforator. Using a transparency of both perfins to try to identify the variety, I could not convince myself that there were any significant differences between the two and using the transparency on the perforator impressions I found that either matches fairly well. The Perfin Catalog states that L137A is in an earlier stamp issue and was used during that time frame. Does anyone have a copy of L137A in later issues and are the holes cleanly cut? I would appreciate some input.

I am interested in missing hole perfins and have reached the conclusion that broken pins may not be the reason for missing pins. This was reinforced by a fact that was related to me by a Cummins employee: the pins in a multi die perforator were made of different lengths to reduce the force/effort in making the perforations. The Cummins individual also said the choice of pin length was random, pins were randomly picked from a box of pins of assorted lengths. The perforator construction is such that pin lengths cannot be determined visually.

I decided to try various handle strokes to see if the pins were of different lengths. For perforator C124 the first impression (top row, fig. 1) was made using a full stroke, the second (row, fig. 1) about a 3/4 stroke, and the third (row, fig. 1) about a 1/2 stroke. It can be seen there are some missing holes in both partial strokes (rows 2 and 3). The same operation was used for the L137 perforator with the same results. For this perforator the first (col. 1, fig. 3) is full stroke, the second about a 1/2 stroke, and the third about a 3/4 stroke. This confirms that the perforators were built with different pin lengths and that missing hole patterns might result from a shortened stroke.

This raises the question, is the plating of perforators based on missing holes valid? Can anyone offer information about my speculation?

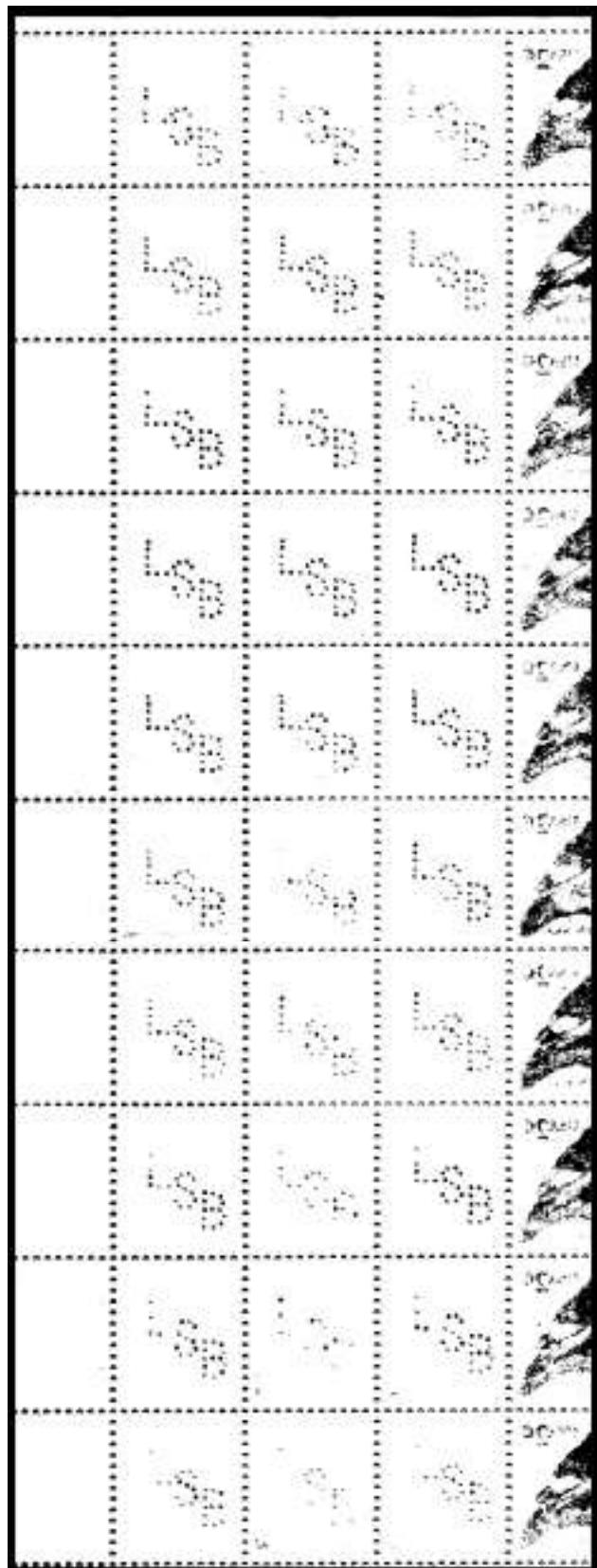


Figure 3. Three vertical rows of pattern L 137.